IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Barberá-Guillem, Nelson, & Castro

Filed: July 2001 Attny Docket: B-73

For: Nanocrystals having polynucleotide strands and their use to form dendrimers in a signal amplification system

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

Assistant Commissioner of Patents
Washington, D.C. 20231

Applicants wish to make of record the following references under the provisions of 37 CFR 1.97 **and** to provide copies of relevant background cited in the application. The submission of any document herewith is not intended as an admission that such document constitutes prior art against the claims of the present application, or is to be considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove any document as a cited reference against the claims of the present invention.

References Cited

Please see attached Form PTO-1149 for list of publications, legible copies of all publication listed are enclosed.

Statement of Relevancy

1. Bruchez Jr. et al., 1998, *Science*, 281:2013-2015. This paper describes semiconductor nanocrystals having a core, a shell, and a third layer comprising silica.

2. Chan et al., 1998, *Science*, 281:2016-2018. This paper describes semiconductor nanocrystals having a core, a shell, and a third layer comprising mercaptoacetic acid.

3. U.S. Patent No. 5,990,479 issued November 23, 1999 to Weiss et al. This patent describes semiconductor nanocrystals having a layer comprising silica.

4. U.S. Patent No. 6,207,392 issued March 27, 2001 to Weiss et al. This patent describes semiconductor nanocrystals with relevance to energy transfer of fluorescence (what they term as "FRET").

5. U.S. Patent No. 5,547,748 issued August 20, 1996 to Ruoff et al. This patent describes carbon nanoencapsulates which can be used to encapsulate metals.

6. U.S. Patent No. 6,114,038 issued September 05, 2000 to Castro and Barbera-Guillem. This patent describes functionalized semiconductor nanocrystals.

7. U.S. Patent No. 6,221,602 issued April 24, 2001 to Barbera-Guillem, Nelson, & Castro. This patent describes functionalized semiconductor nanocrystals and their use to label nucleobases and for labeling for nucleic acid strand synthesis.

8. U.S. Patent No. 5,487,973 issued January 30, 1996 to Nilsen and Prensky. This patent describes DNA matrices for assaying nucleic acid sequences.

9. PCT Publication WO 91/08307 published on June 13, 1991 to Van Ness. This publication describes a polymer having attached thereto oligonucleotides for use in detecting a target nucleic acid sequence.

The person making this statement is the patent attorney who signs below on the basis of the information supplied by the inventors, and as the attorney associated with the filing and prosecution of this application (37 CFR 1.56(a)):

M. Bud Nelson
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Date:12 July 2001

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Docket Number (Optional)	Application Number
B-73	
Applicant(s)	
Barbera-Guillem, Nelson, Castro	
Filing Date	**Group Art Unit**
13 July 2001	

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,990,479	11/23/1999	Weiss et al.			
		6,207,392	03/27/2001	Weiss et al.			
		5,547,748	08/20/1996	Ruoff et al.			
		6,114,038	09/05/2000	Castro & Barbera-Guillem			
		6,221,602	04/24/2001	Barbera-Guillem et al.			
		5,487,973	01/30/1996	Nilsen & Prensky			

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	Translation NO
		WO 91/08307	06/13/1991					

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

Chan and Nie, "Quantum dot bioconjugates for ultrasensitive nonisotopic detection", Science, Vol. 281, p. 2016-2018, 25 September, 1998.

Bruchez et al., "Semiconductor nanocrystals as fluorescent biological labels", Science, Vol. 281, p. 2016-2018, 25 September, 1998.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.